Tampa International Airport Benchmarks

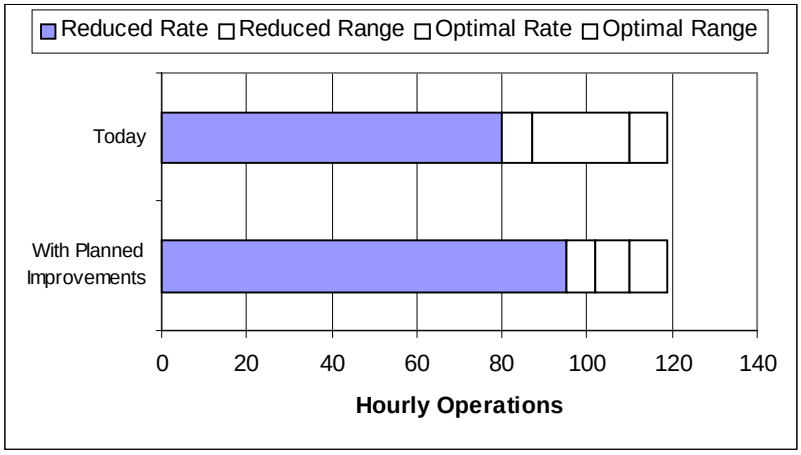
- The current capacity benchmark at Tampa International is 110-119 flights per hour in good weather.
- Current capacity falls to 80-87 flights (or fewer) per hour in adverse weather conditions, which may include poor visibility, unfavorable winds or heavy precipitation.
- On good weather days, scheduled traffic at Tampa is at or below the capacity benchmark for the entire day. In adverse weather conditions, scheduled operations meet or exceed capacity for less than one hour per day.
- Less than 1% of the Tampa traffic is significantly delayed (i.e., more than 15 minutes).
- Technology and procedural improvements are not expected to increase Tampa's capacity benchmark in good weather. However, the adverse weather capacity is increased by 19% (to 95-102 flights per hour), primarily by conducting dual simultaneous approaches (rather than dependent staggered approaches).
- These capacity increases could be brought about as a result of:
  - ADS-B/CDTI (with LAAS), which provides a cockpit display of the location of other aircraft and will help the pilot maintain the desired separation more precisely.
  - FMS/RNAV routes, which allow a more consistent flow of aircraft to the runway.
  - Dual simultaneous approaches.
- Demand at Tampa is expected to grow by 18% over the next decade. This growth should easily be accommodated without causing a significant increase in delays.

TPA – Tampa International Airport

Airport Capacity Benchmarks – These values are for total operations achievable under specific conditions:

- **Optimum Rate** – Visual Approaches (VAPS), unlimited ceiling and visibility
- **Reduced Rate** – Most commonly used instrument configuration, below visual approach minima

Scenario	Optimum Rate	Reduced Rate
Today	**110-119**	**80-87**
New Runway	**N/A**	**N/A**
With planned improvements	**110-119**	**95-102**



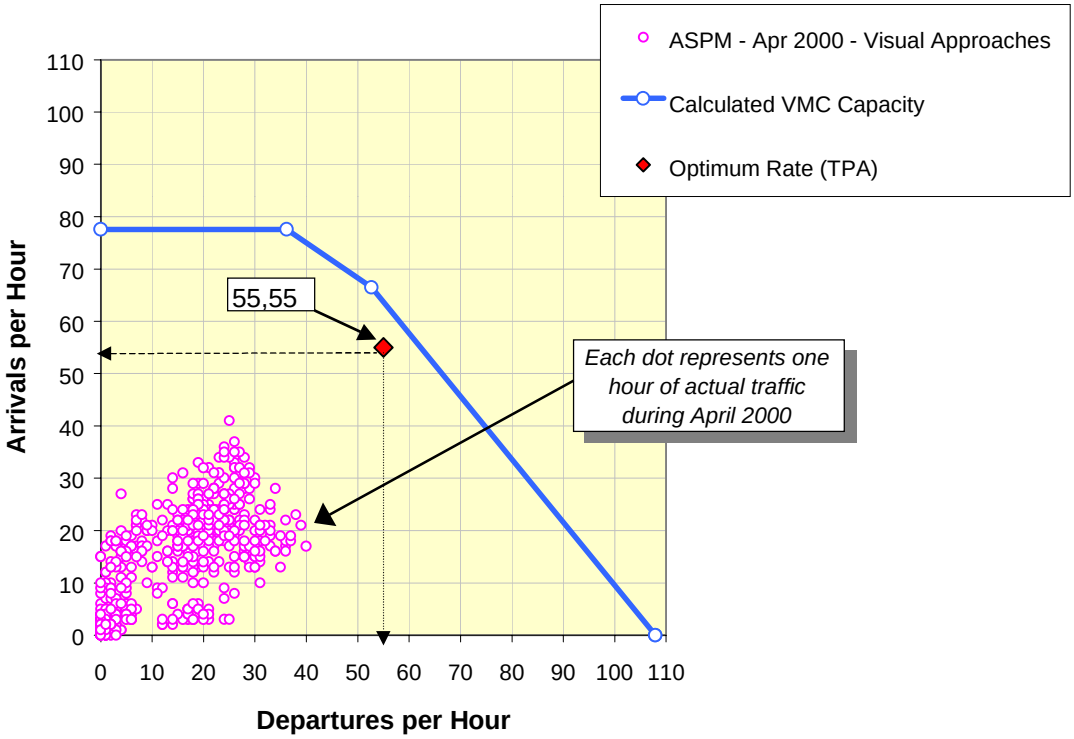
- The benchmarks describe an achievable level of performance for the given conditions, which can occasionally be exceeded. Lower rates can be expected under adverse conditions. Note: In some cases, facilities provided separate unbalanced maximum arrival and departure rates.
- Planned Improvements include:
  - ADS-B/CDTI (with LAAS) – provides a cockpit display of the location of other aircraft. This will help the pilot maintain the desired separation more precisely.
  - FMS/RNAV Routes – allows more consistent delivery of aircraft to the runway threshold.
  - Dual simultaneous approaches
- Benefits from Planned Improvements assume that all required infrastructure and regulatory approvals will be in place. This includes aircraft equipage, airspace design, environmental reviews, frequencies, training, etc. as needed.
- **Note:** These benchmarks do not consider any limitation on airport traffic flow that may be caused by non-runway constraints at the airport or elsewhere in the NAS. Such constraints may include:
  - Taxiway and gate congestion, runway crossings, slot controls, construction activity
  - Terminal airspace, especially limited departure headings
  - Traffic flow restrictions caused by en route miles-in-trail restrictions, weather or congestion problems at other airports

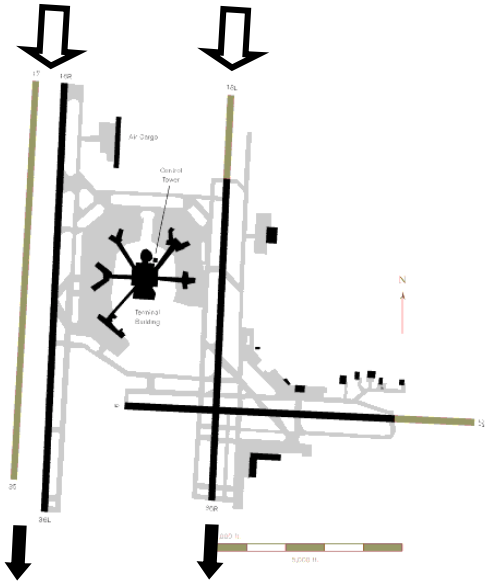
These values were calculated for the Capacity Benchmarking task and should not be used for other purposes, particularly if more detailed analyses have been performed for the individual programs.

The list of Planned Improvements and their expected effects on capacity does not imply FAA commitment to or approval of any item on the list.

Current Operations – Optimum Rate

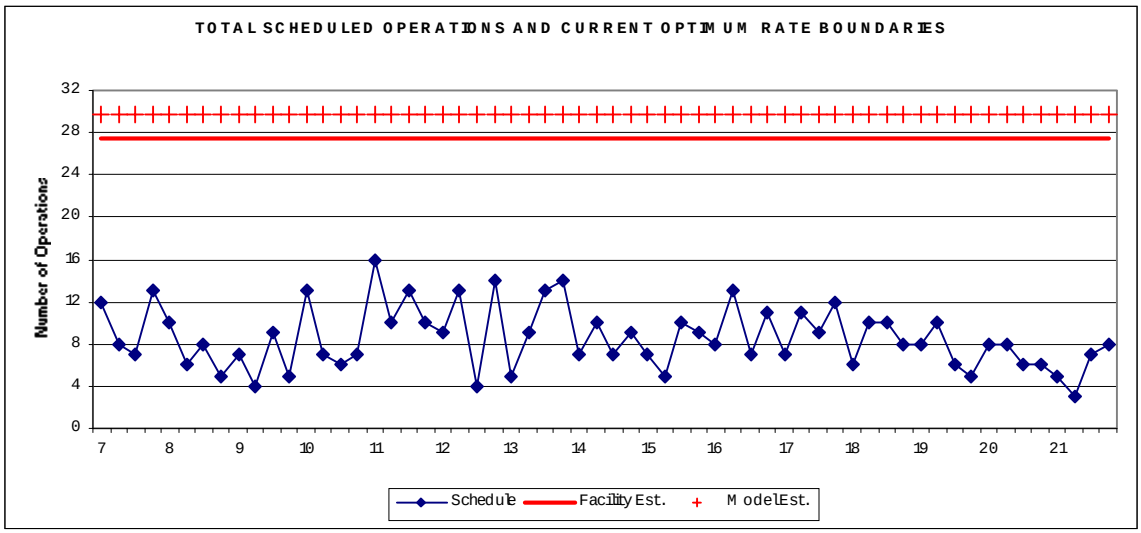
- Visual approaches, visual separation – Optimum Rate of (55, 55) was reported by the facility
  – Arrive Runways 18L/R, Depart Runways 18L/R
- ASPM data is actual hourly traffic counts for the month of April 2000 for Visual Approach conditions. This data includes other runway configurations and off-peak periods.
- Solid line represents the calculated airport capacity during a busy hour, and the tradeoff between arrivals and departure rates

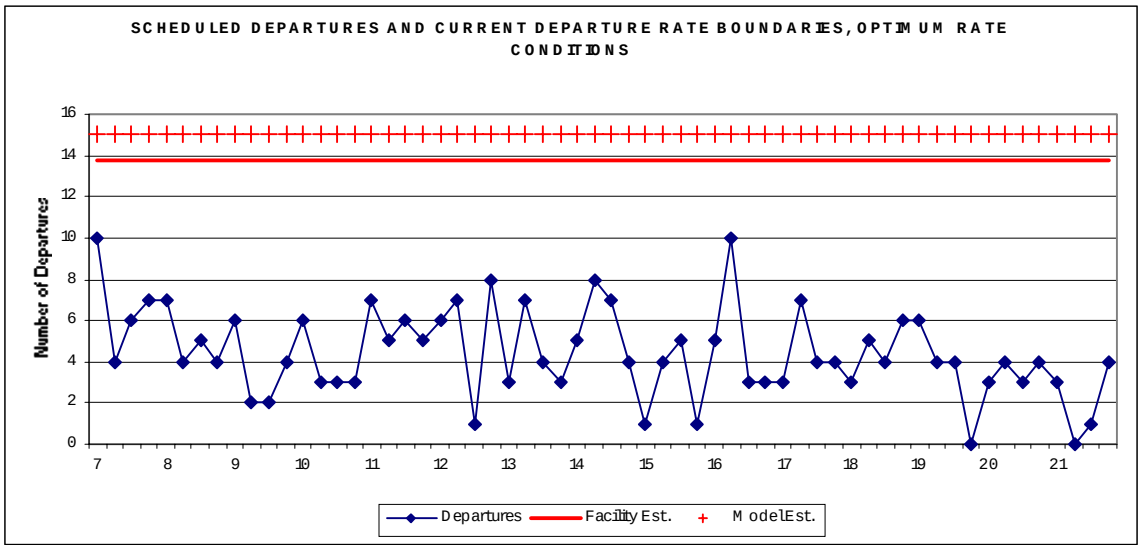


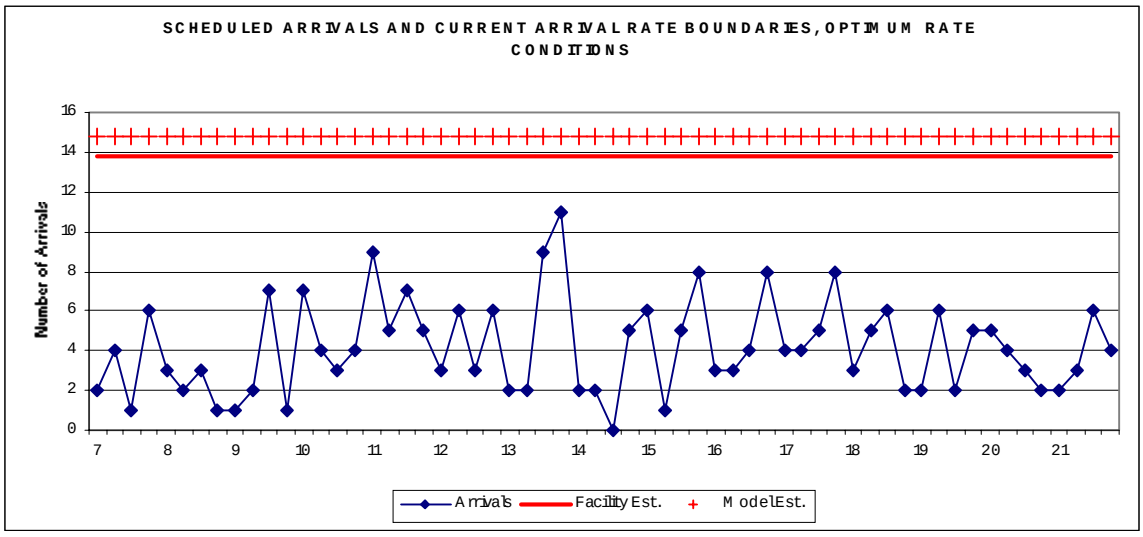


TPA – Tampa International Airport

Scheduled Departures and Arrivals and Current Departure and Arrival Rate Boundaries (15-Minute Periods) Under Optimum Rate Conditions

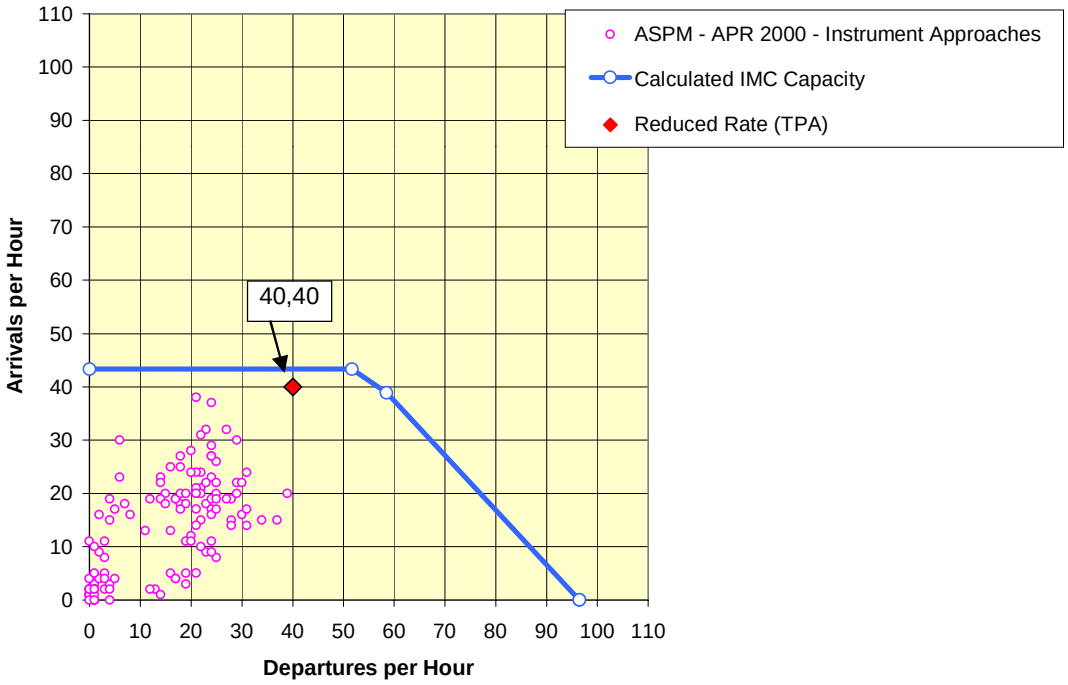


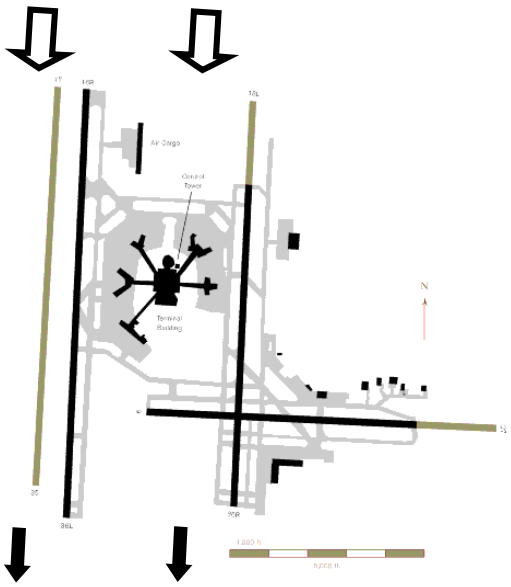




Current Operations – Reduced Rate

- Instrument approaches (below Visual Approach Minima)
  - Arrive and Depart Runways 18L/R
  - Staggered approaches
- Reduced Rate of (40, 40) was reported by the facility
- ASPM data for “Instrument Approaches” can include marginal VFR, with higher acceptance rates
- Chart below represents observed traffic and expected rates in terms of operations per hour





TPA – Tampa International Airport

Scheduled Departures and Arrivals and Current Departure and Arrival Rate Boundaries (15-Minute Periods) Under Reduced Rate Conditions